

REMARKS

The Office Action dated January 3, 2008 has been received and carefully noted. The above amendments to the specification, drawings and claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 17-22 and 31-35 are pending in the application. Claims 17-18 and 21-22 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 23-30 have been canceled. Claims 31-35 are new. No new matter is added. Applicant submits the pending claims for consideration in view of the following.

The Office Action objected to figures 1, 2, 3, and 5 for being directed to prior art but not including a legend designating the drawings as such. As indicated above, replacement drawing sheets for Figures 1, 2, 3, and 5 have been submitted herewith that are each labeled as “(Prior Art).” Withdrawal of this objection is therefore respectfully requested.

Additionally, the Office Action objected to the drawings for using the character “2” to reference the “MS” and “UE.” As indicated above, “UE” has been replaced by “MS” in the replacement drawing sheet for Figure 2 such that the character “2” only references “MS.” Withdrawal of this objection is therefore respectfully requested.

Also, the Office Action objected to the drawings for using character “8” to designate “MSC/VLR, “2G-MSC,” and “Visiting MSC.” As indicated above, the foregoing features are consistently represented as “MSC” and reference number “8” in

IN THE DRAWINGS:

In accordance with the drawings objections raised in the Office Action, please replace drawing sheets of Figures 1, 2, 3, and 5 with the attached replacement drawing sheets. Referring to the replacement drawing sheet of Figure 1, the drawing sheet has been labeled as “(Prior Art)” and feature 8 has been renamed as “MSC” for consistency. Referring to the replacement drawing sheet of Figure 2, the drawing sheet has been labeled as “(Prior Art)” and feature 2 has been renamed “MS” for consistency. Referring to replacement drawing sheet of Figure 3, the replacement drawing has been labeled as “(Prior Art)” and features 8’ and 8” have been renamed as “MSC” for consistency. Referring to the replacement drawing sheet of Figure 5, the replacement drawing sheet has been labeled as “(Prior Art).”

the replacement drawing sheets. In combination with these amendments, the Specification has been amended to indicate that an MSC may include a “MSC/VLR,” “2G-MSC,” and/or a “Visiting MSC.” This specification amendment is presented in action items 4, 6, and 8 of the Specification Amendments Section of this Response. Withdrawal of this objection is therefore respectfully requested.

Also, the Office Action objected to the drawings for depicting certain features in the drawings without providing the features in the Specification. These features include: 8', 8'', Abis, A_{js}, D_i, CBC, BTS (LMU Type B), CBC-BSC, CBC-SMLC, E, E₂, Gb, Gs, Iu, Iu-ps, Lb, Lc, Le, Lg, Lh, LMU Type B, Lp, Ls, OSA-LCS, Um, and Uu. As indicated in the Specification Amendment Section of this Response, these features are indicated in the Specification in action items 5-6 and 17. Withdrawal of this objection is therefore respectfully requested.

Additionally, the Office Action objected to the drawings for not depicting “step q,” as presented in the Specification. As indicated in the Specification Amendment Section of this Response, “step 1” in action item 19 has been replaced with “step q” for consistency between the Specification and the Figures. Withdrawal of this objection is therefore respectfully requested.

The Office Action objected to various portions of the specification for using a British English form of certain words. For example, the Office Action objected to the use of “centre,” “neighbour,” “signalling,” “utilising,” “optimised,” and “standardised” for not using the American English spelling. To overcome this objection, Applicant

respectfully directs the attention of the Examiner to MPEP 608.01 that indicates that British English spellings are acceptable in USPTO practice. As the foregoing words fall under British English spellings, withdrawal of this objection is respectfully requested.

The Office Action also objected to the heading of page 7 for missing the “o” in the words “Embodiments” and “Invention.” Additionally, the Office Action objected to page 8, fifth paragraph, eleventh line for not using the second “e” in “described.” The Office Action also objected to page 11, first paragraph, second line, for missing the letter “e” in “principle.” Applicant has reviewed the Specification and has not found the errors alleged by these objections. Applicant therefore respectfully requests that these objections be withdrawn. If the Examiner again locates this objectionable matter, Applicant respectfully requests the Examiner to contact Applicant regarding the objectionable matter.

The Office Action also objected to several minor issues in the Specification, such as the spelling of words. All of these remaining objections are addressed and overcome by the amendments presented in the Specification Amendments Section of this Response. Applicant therefore respectfully requests that these remaining objections be withdrawn.

The Office Action objected to claims 17, 18, 21-23, 25-27, and 29-30 for minor informalities. To overcome the objections to claims 17, 21-22, and 26-27, Applicant has amended the foregoing claims as indicated in the Claim Amendments Section of this Response. These amendments include replacing “user” with “user’s” in claims 17, 21, and 22, spelling out “GSM” in claim 26, and replacing “comprising” with “comprises” in

claim 27. To overcome the objections of claims 18, 21-23, 25, 27, and 29-30 based on the British English spelling of words, Applicant kindly draws the attention of the Examiner to MPEP 608.01 which allows the British English spelling of words. Withdrawal of all of the claim objections is therefore respectfully requested.

The Office Action rejected claims 21 and 23 under 35 U.S.C. §112 for certain antecedent basis issues. For example, claim 21 was rejected for reciting “a communications system” while being dependent from method claim 17. Similarly, claim 23 was rejected for reciting “the network according to claim 20” while claim 20 is a method claim. To overcome these rejections, claim 21 has been amended to recite apparatus limitations without a reference to method claim 17, and claim 23 has been canceled. Withdrawal of this rejection is therefore respectfully requested.

The Office Action rejected claims 17-19, 21-22, 25-28, and 30 under 35 U.S.C. § 102(e) as being anticipated by Rhodes et al. (US 2003/0186709 A1). The Office Action took the position that Rhodes discloses or suggests all the limitations of the foregoing claims. This rejection is traversed as follows.

Claim 17, upon which claims 17-20 depend, is generally directed to a method that includes establishing an emergency call between a user's equipment within a radio coverage area and one of at least two points able to answer the call. Establishing the emergency call may include receiving an emergency call request, determining a first estimate of a position of the user's equipment within the radio coverage area, and interrupting a call establishment of the emergency call. Establishing the emergency call

may also include using the control point to select, based on the first position estimate, which one of the at least two answering points the call is to be established with, and, when at least one answering point has been selected, resuming the call establishment, determining a second, more accurate, position estimate, and sending the second position estimate to the selected answering point.

Claim 21, upon which claim 31 depends, is generally directed to an apparatus that includes a call establisher that is configured to establish an emergency call between a user's equipment within a radio coverage area and one of at least two points able to answer the call. The call establisher is configured to receive an emergency call request, determine a first estimate of a position of the user's equipment within the radio coverage area, and interrupt a call establishment of the emergency call. The call establisher is further configured to use the control point to select, based on the first position estimate, which one of the at least two answering points the call is to be established with, and, when at least one answering point has been selected, resume the call establishment, determine a second, more accurate, position estimate, and send the second position estimate to the selected answering point.

Claim 22 is generally directed to a system that includes a base controller configured to control a base transceiver that provides the radio coverage area, a switching centre configured to receive an emergency call request, and a location centre configured to determine a first estimate of the position of a user's equipment within a coverage area. The system also includes a control point configured to select which of the at least two

answering points the call is established with based on the first position estimate. The call establishment is interrupted, and, when the at least one answering point has been selected, the switching centre is configured to resume the call establishment, and a second, more accurate, position estimate is determined and sent to the selected answering point.

Claim 32 is generally directed to an apparatus that includes an establishing means for establishing an emergency call between a user's equipment within a radio coverage area and one of at least two points able to answer the call. The establishing means includes a means for receiving an emergency call request, a means for determining a first estimate of a position of the user's equipment within the radio coverage area, a means for interrupting a call establishment of the emergency call. The establishment means also includes a means for using the control point to select, based on the first position estimate, which one of the at least two answering points the call is to be established with, and when at least one answering point has been selected, means for resuming the call establishment, means for determining a second, more accurate, position estimate, and means for sending the second position estimate to the selected answering point.

Claim 33 is generally directed to a computer program embodied on a computer-readable medium. The computer program is configured to control a processor to perform operations that include establishing an emergency call between a user's equipment within a radio coverage area and one of at least two points able to answer the call. Establishing the emergency call may include receiving an emergency call request, determining a first estimate of a position of the user's equipment within the radio coverage area, interrupting

a call establishment of the emergency call, and using the control point to select, based on the first position estimate, which one of the at least two answering points the call is to be established with. Establishing the emergency call may also include, when at least one answering point has been selected, resuming the call establishment, determining a second, more accurate, position estimate, and sending the second position estimate to the selected answering point.

Each of the foregoing references recites limitations that are not disclosed or suggested by Rhodes.

Rhodes generally discloses a public safety access point selection system directed to E911 wireless callers in a GSM type system. In Rhodes, ESRD or ESRV information for a wireless E911 caller includes requesting accurate location information relating to the caller. The selection of a public safety access point is delayed for a period of time until the requested location information is received. If the location information is not received, then a location relating to a serving base station is returned as a default condition in the place of the requested accurate location information.

However, Rhodes fails to disclose or suggest, at least, “determining a first estimate of a position of said user’s equipment within said radio coverage area, interrupting a call establishment of the emergency call, using the control point to select, based on said first position estimate, which one of said at least two answering points the call is to be established with, and when at least one answering point has been selected, resuming said

call establishment, determining a second, more accurate, position estimate, and sending the second position estimate to the selected answering point,” as recited in claim 17.

Instead, Rhodes discloses that the selection of an PSAP (Public Safety Access Point) is delayed a given amount of time until the requested accurate location information is received. A location relating to a serving base station is returned as a default condition in place of the requested accurate location information if the accurate location information is not received before expiration of the given amount of time. Explained in other terms, the PSAP is determined based on a SubLocRep location estimate, if the SubLocRep location estimate is available within a pre-configured time interval (T1). However, if the SubLocRep location estimate is not available within T1, then the PSAP is determined based on the cell site sector identification.

Distinctly, the claimed invention makes a distinction between a position estimate made for routing purposes (also referred to as an “interim position”) and a subsequently determined and more accurate “initial position.” The interim position is firstly determined at an emergency call setup stage and the SCP determines the routing address of the relevant PSAP based on the interim position. The call is then routed to the PSAP, and only after that, the initial position is determined and sent to the PSAP so that a more accurate location of the caller may be dispatched by the emergency service network.

One skilled in the art will appreciate that the interim position is much more accurate than the cell-level positioning method disclosed in Rhodes, but slightly less accurate than the initial position. The benefit achieved by using a slightly less accurate

positioning method in estimating the interim position is that the relevant PSAP can be selected more quickly, which optimizes the system and a whole particularly when there is more than one PSAP covering a cell.

Accordingly, in Rhodes, the accurate location information is used for selection of a PSAP if that information is obtained within a given amount of time, and a less accurate location information is used if the accurate information has not been obtained in a pre-selected period of time. In the claimed invention, however, a less accurate location information is used for routing the call, and the more accurate location information is determined and sent to the PSAP after routing the call. Thus, in Rhodes, one or the other location information is used for selecting the PSAP while the present invention both location estimates are determined and used, one for routing and the other for providing emergency services with a more accurate location of the caller.

In short, Rhodes fails to disclose or suggest, “determining a first estimate of a position of said user’s equipment within said radio coverage area, interrupting a call establishment of the emergency call, using the control point to select, based on said first position estimate, which one of said at least two answering points the call is to be established with, and when at least one answering point has been selected, resuming said call establishment, determining a second, more accurate, position estimate, and sending the second position estimate to the selected answering point,” as recited in claim 17.

Therefore, Applicant respectfully requests that the rejection of claim 17 be withdrawn for at least this reason. Similarly, Applicant respectfully requests that the

rejection of claims 21-22 be withdrawn as these claims recite similar limitations, though each claim has its own scope. Additionally, Applicant respectfully requests that the rejection of claims 18-19 be withdrawn for their dependency from claim 17 and for the patentable subject matter recited therein.

Claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Rhodes, in view of Maanoja et al. (US 2004/0259566). The Office Action took the position that Rhodes failed to disclose or suggest all the limitations of claim 20, and that the deficiencies of Rhodes are accounted for by Maanoja. This rejection is traversed as follows.

A discussion of Rhoades is presented above. Maanoja generally discloses method for calculating the location of a mobile user terminal in a wireless communication system. The Maanoja method includes identifying a default sequence in which a plurality of location calculating methods should be executed, forming a new sequence by reordering a default sequence responsive to at least one system parameter, and executing at least one of the calculating methods in accordance with the new sequence to thereby calculate the location.

However, a combination of Rhodes and Maanoja fails to disclose or suggest, at least, “determining a first estimate of a position of said user’s equipment within said radio coverage area, interrupting a call establishment of the emergency call, using the control point to select, based on said first position estimate, which one of said at least two answering points the call is to be established with, and when at least one answering point


has been selected, resuming said call establishment, determining a second, more accurate, position estimate, and sending the second position estimate to the selected answering point,” as recited in claim 17, upon which claim 20 depends. Therefore, Applicant respectfully requests that the rejection to claim 20 be withdrawn for its dependency from claim 17 and for the patentable subject matter recited therein.

The foregoing comments made with respect to the positions presented in the Office Action are not to be construed as acquiescence with other positions presented in the Office Action that have not been explicitly contested. Accordingly, the above arguments for patentability of a claim should not be construed as implying that there are not other valid reasons for patentability of the claim or other claims. Additionally, the Applicant does not acquiesce that the cited art anticipates or renders obvious any of the claims as previously presented, and reserve the right to pursue any of the previously presented claims in a subsequent application.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant’s undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Petition for Extension of Time
Additional Claim Fee Transmittal
Replacement Drawings (4 sheets)